APPARATUS AND METHOD FOR TRACE STREAM IDENTIFICATION OF A PIPELINE FLATTENER SECONDARY CODE FLUSH FOLLOWING A RETURN TO PRIMARY CODE EXECUTION

Abstract of the Invention

When an INTERRUPT SERVICE ROUTINE (SECONDARY) CODE FLUSH signal is generated in a target processor during a test procedure, a sync marker is generated in a program counter trace stream. The sync marker includes a plurality of packets, the packets identifying that the sync marker is has been generated as a result of the INTERRUPT SERVICE ROUTINE CODE FLUSH signal. The interrupt service routine code flush sync marker identifies the absolute program counter address at the time of the generation of the INTERRUPT SERVICE ROUTINE CODE FLUSH signal and relates the INTERRUPT SERVICE ROUTINE CODE FLUSH signal sync marker to a timing trace stream. The INTERRUPT SERVICE ROUTINE CODE FLUSH signal is generated at the transition between the interrupt service routine (secondary) code instructions being removed from the pipeline flattener and the program (primary) code instructions being removed from the pipeline flattener.